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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NATASHA P. HIXON and MARK A. HIXON

Appeal 2007-3074
Application 09/864,723
Technology Center 3700

Decided: January 15, 2009

Before JENNIFER D. BAHR, LINDA E. HORNER, and STEFAN
STAICOVICI *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Natasha P. Hixon et al. (Appellants) appeal under 35 U.S.C. § 134
from the Examiner's decision rejecting claims 12-16 and 24-37. Claims 1-

11 and 17-23 have been canceled.¹ We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

THE INVENTION

The Appellants' invention is drawn towards a die cutting device 10 that forces a die 60 against a sheet of paper (¶ 38 and fig. 3). The device 10 includes a first member 20, a second member 30, and a biasing element (handles) 40 (¶ 38 and fig. 3). The first member 20 includes a substrate 21 and a die retaining element 24 associated with a substantially planar die receiving surface 22 which receives the substantially planar back side of the die 60 (¶¶ 39-40 and fig. 3). The second member 30 includes a substantially planar sheet support surface 32 (¶ 45 and fig. 3). The biasing element includes a first handle 42 and a second handle 44 (¶ 49 and fig. 3). When the first and second members 20 and 30 are biased against each other, the cutting edges 68 of the die 60 are forced against and through the sheet of paper 100 positioned between the die 60 and the second member 30 (¶ 54 and fig. 5).

Claim 12 is representative of the claimed invention and reads as follows:

12. An apparatus for forcing a die into a sheet of material, comprising:

a first member including:

¹ We refer herein to the Appeal Brief ("Br."), filed July 27, 2005, and the Examiner's Answer ("Ans."), mailed April 7, 2006.

an uninterrupted, planar die receiving surface; and

a die retaining element associated with said die receiving surface, said die retaining element being configured to secure a planar surface of a substantially planar die to said die receiving surface;

a second member including:

an uninterrupted, planar sheet supporting surface oriented to oppose said die receiving surface; and

handles associated with said first and second members so as to facilitate movement of at least one member of said first and second members toward the other of said first and second members.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Mercorelli	US 3,372,482	Mar. 12, 1968
Fink	US 4,574,693	Mar. 11, 1986
Sabin	US 5,172,622	Dec. 22, 1992
Lo	US 5,617,785	Apr. 8, 1997
Benson	US 5,660,105	Aug. 26, 1997
Andersen	WO 00/51533	Sep. 8, 2000

The following rejections are before us for review:

The Examiner rejected claims 12, 13, 16, and 24 under 35 U.S.C.

§ 102(b) as anticipated by Lo.

The Examiner rejected claims 31, 32, and 37 under 35 U.S.C.

§ 102(b) as anticipated by Mercorelli.

The Examiner rejected claims 31-34, 36, and 37 under 35 U.S.C. § 102(a) as anticipated by Andersen.

The Examiner rejected claims 25-28 and 30 under 35 U.S.C. § 103(a) as unpatentable over Lo.

The Examiner rejected claim 14 under 35 U.S.C. § 103(a) as unpatentable over Lo in view of Fink.

The Examiner rejected claims 15 and 29 under 35 U.S.C. § 103(a) as unpatentable over Lo in view of Sabin.

The Examiner rejected claim 35 under 35 U.S.C. § 103(a) as unpatentable over Andersen in view of Benson.

THE ISSUES

1. Have the Appellants shown that the Examiner erred in finding that the frame 30 of the embossing machine of Lo constitutes a “handle” as required by independent claims 12 and 25?
2. Have the Appellants shown that the Examiner erred in finding that Andersen describes a die retaining element having an “uninterrupted planar die receiving surface” that completely secures a “substantially planar die” along an “uninterrupted planar surface of the substantially planar die”?
3. Have the Appellants shown that the Examiner erred in finding that Mercorelli describes a member having a “sheet supporting surface” and a die retaining element having an “uninterrupted planar die receiving surface” that completely secures a “substantially planar die” along an “uninterrupted planar surface of the substantially planar die”?

SUMMARY OF DECISION

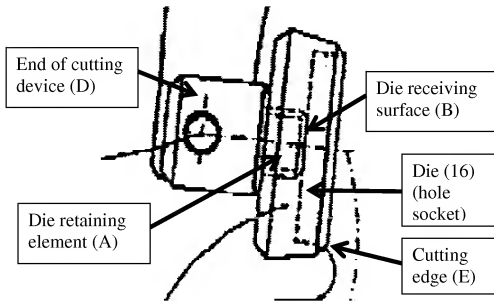
We AFFIRM the Examiner's rejection as to claims 31 and 33-37, and REVERSE the Examiner's rejection as to claims 12-16, 24-30, and 32.

FINDINGS OF FACT

The following enumerated findings of facts (FF) are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 848 F. 2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Lo describes an embossing machine including a frame 30, a top magnet 40 (a die retaining element associated with a die receiving surface), a top die 80, a bottom magnet 60 (an uninterrupted, planar sheet supporting surface), a bottom die 90, and a handle 120 (col. 2, ll. 36, 43-44, and 63-64; col. 3, ll. 12-18 and 34-35; and fig. 6).
2. Lo further describes that the embossing machine can be operated both manually and electrically using a handle 120, and a motor 71, respectively (col. 1, ll. 54-56; col. 3, ll. 1-4 and 32-35; fig. 6).
3. When the embossing machine of Lo is operated electrically, the bottom die is moved upward while the top die remains stationary, and when it is operated manually, the top die is moved downward while the bottom die remains stationary (col. 1, ll. 56-59).
4. Frame 30 of the embossing machine of Lo was designed to support the top and bottom dies while allowing the top and bottom dies to move toward each other during the embossing process (fig. 5).
5. Andersen describes a cutting device including handles 20, a hole socket 16 (die) having a cutting edge 22, and a holding-up plate 18 (an

- uninterrupted, planar sheet supporting surface) (Page 7, ll. 11-15 and fig. 1).
6. Andersen further describes that the hole socket (die) 16 and the holding-up plate 18 are each screwably connected to each respective end of the cutting device (Page 7, ll. 21-24 and fig 1).
 7. A Modified Figure 1 of Andersen is reproduced below:



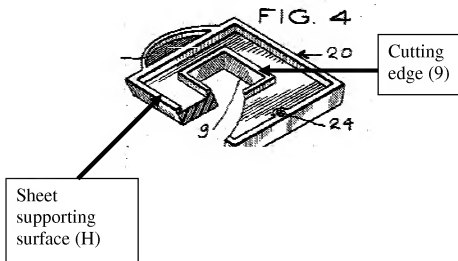
The Modified Figure 1 of Andersen depicts the die retaining element (A) located at an end of the cutting device (D), the die receiving surface (B) of the die retaining element (A), the die (16), and the cutting surface (E).

8. The cutting edges 68 of the Appellants' invention protrude a desired distance from a front side of the die plate 62 (Spec. 8, ¶ 34).
9. Andersen shows that the cutting edge (E) protrudes from the die 16 (see Modified Figure 1 of Andersen).

10. Mercorelli describes a cutting device including levers 11 and 12 (first and second members), handles 14 and 15, channels 18 and 19 (die retaining elements) for receiving male and female dies 20 and 21 having cutting edges 8 and 9, respectively (col. 1, ll. 54-60; col. 2, ll. 13-14; figs. 1 and 2).

11. The cutting device of Mercorelli functions by placing a sheet material between dies 20 and 21, displacing die 21 against die 20, and engaging the cutting edges 8 and 9 to cut out shapes from the sheet material (col. 1, ll. 12-15 and fig. 2).

12. A Modified Figure 4 of Mercorelli is reproduced below:



The Modified Figure 4 of Mercorelli depicts the female die 20 including a surface (H) for holding a sheet of material and cutting edges 9 for engaging with cutting edges 8 of the male die 21 (col. 2, ll. 36-40 and fig. 4).

13. In the Appellants' invention, the die receiving surface 22 may include a die retaining element 24'' that protrudes above the plane of the die receiving surface 22 (Spec. 10, ¶ 43 and fig. 3C).

14. Mercorelli also teaches that the ends of channels 18 and 19 include bosses 25 for locating the dies 20 and 21, respectively (col. 1, ll. 67-72 and figs. 1 and 2).

15. Mercorelli further describes the back side of the male die 21 to include a central indentation (fig. 3).

PRINCIPLES OF LAW

Claim construction

When construing claim terminology in the United States Patent and Trademark Office, claims are to be given their broadest reasonable interpretation consistent with the specification, reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)).

Anticipation

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, *cert. denied*, 484 U.S. 827 (1987).

It is not necessary that the reference teach what the subject application teaches, but only that the claim read on something disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

OPINION

Issue (1)

Claims 12 and 25 require handles associated with the first and second members. The Appellants argue that Lo does not disclose “handles associated with said first and second members” (Br. 10). The Examiner takes the position that the frame 30 constitutes a “handle” because “a hand of a user can hold the element 30” (Ans. 8). The customary and ordinary meaning of the term “handle” is “a part designed esp. to be grasped by hand.” *Merriam Webster’s Collegiate Dictionary* 526 (Tenth Ed. 1997). Lo teaches that element 30 constitutes a “frame” (FF 1). Lo further teaches that the embossing machine can be operated manually by moving the top die downward using handle 120, while the bottom die remains stationary, and also can be operated electrically by moving the bottom die upward using motor 71, while the top die remains stationary (FF 2 and 3). As such, either the handle 120 or the motor 71 is used for operating the embossing machine of Lo. Frame 30 was designed to support the top and bottom dies while allowing the top and bottom dies to move toward each other during the embossing process (FF 4). A person of ordinary skill in the art would not readily recognize that frame 30 of the embossing machine of Lo constitutes a “handle” because frame 30 is not “a part designed esp. to be grasped by hand” (underlining added). Moreover, we note that most, if not all parts of the embossing machine of Lo can be grasped by hand. For example, the transmission 70 can be grasped by hand and urged upward to move the bottom die towards the upward die. However, a person ordinarily skilled in the art would not recognize that the transmission 70 constitutes a “handle.”

In conclusion, because Lo does not disclose all the limitations of claim 12, the rejection of claim 12 and claims 13, 16, and 24 depending from claim 12, cannot be sustained. Similarly, because Lo does not disclose or suggest all the limitations of claim 25, the rejection of claim 25 and claims 26, 27, 28, and 30 depending from claim 25, likewise, cannot be sustained.²

With respect to claim 14, we find that the application of Fink does not make up for the deficiencies in Lo as discussed above. Hence the rejection of claim 14 under 35 U.S.C. § 103(a) as unpatentable over Lo in view Fink cannot be sustained.

Similarly, with respect to claims 15 and 29, we find that the application of Sabin does not make up for the deficiencies in Lo as discussed above. Hence the rejection of claims 15 and 29 under 35 U.S.C. § 103(a) as unpatentable over Lo in view Sabin, likewise, cannot be sustained.

Issue (2)

Appellants argue the rejection under 35 U.S.C. § 102(b) of claims 31, 33, 34, 36, and 37 as anticipated by Andersen together as a group. Therefore, in accordance with 37 C.F.R. § 41.37(c)(1)(vii)(2008), we have selected claim 31 as the representative claim to decide the appeal, with claims 33, 34, 36, and 37 standing or falling with claim 31. In view of Appellants' arguments, we will address the rejection of claims 32 and 35 separately.

² Accordingly, we need not consider the Ruff declaration (Br. 20-21) in the analysis of the instant appeal.

Appellants' arguments as to why Andersen does not anticipate claim 31 is that Andersen does not show: (1) a member having "an uninterrupted, planar die receiving surface;" and (2) a die retaining element that is "configured to secure a substantially planar die to [the] die receiving surface" (Br. 13).

Appellants' arguments are based on Andersen's teaching that the hole socket 16 (die) is screwably connected to the end of the cutting device D (FF 6 and 7). According to the Appellants, because the die retaining element A constitutes a protruding structure and the die 16 (hole socket) includes a complementary hole for receiving the protruding die retaining element A, Andersen does not describe a die retaining element having an "uninterrupted planar die receiving surface" that secures a "substantially planar die," as required by claim 31 (Br. 13). In response, the Examiner takes the position that the die retaining element includes an "uninterrupted, planar die receiving surface" that receives and supports the die 16 (hole socket) (Ans. 10). We agree with the Examiner. The die retaining element A is a threaded portion that screws into the die 16 (hole socket) (FF 6). A person of ordinary skill in the art would recognize that the retaining element A includes an uninterrupted die receiving surface B that completely supports the die 16 (hole socket) (FF 7) when the retaining element A is screwed into the die 16 (hole socket).

The cutting edges 68 of the Appellants' invention protrude a desired distance from a front side of the die plate 62 (FF 8), such that the die of the Appellants' invention is a "substantially planar die." Similarly, Andersen shows that the cutting edge E protrudes from the die 16 (FF 9). Therefore, in view of the Appellants' description of a "substantially planar die," we

find that the die 16 (hole socket) constitutes a “substantially planar die.” Moreover, we note that claim 31 is broader than the Appellants’ interpretation in that it merely requires a “substantially planar die.” Claim 31 does not exclude a die having a cutting surface (front side) that is “substantially planar” and a back side that includes a hole for attachment to the die retaining element A. Therefore, claim 31 does not require that the die receiving surface be configured to receive the substantially planar back side of the die, but merely that it be configured to secure a “substantially planar die.” In conclusion, the die 16 satisfies the limitation of a “substantially planar die,” as required by claim 31.

In light of the above, the Appellants’ arguments do not demonstrate error in the Examiner’s rejection of independent claim 31 and claims 33, 34, 36, and 37 standing or falling with claim 31, as anticipated by Andersen. Accordingly, the rejection of claim 31 and claims 33, 34, 36, and 37 standing or falling with claim 31 is sustained.

With respect to claim 32, the Appellants argue that Andersen does not describe that the die receiving surface is configured to “receive and completely support [the] uninterrupted, planar surface of [a] substantially planar die” (Br. 14). We agree. Claim 32 requires that the die receiving surface is configured to receive a substantially planar and uninterrupted surface of the die. The backside of die 16 of Andersen, which receives the die receiving surface B of the die retaining element A, includes a hole for attachment to the die retaining element A (FF 6 and 7). As such, a person of ordinary skill in the art would not understand that the backside of die 16 of Andersen constitutes a planar and uninterrupted surface, as required by claim 32. Accordingly, the rejection of claim 32 cannot be sustained.

Finally, with regard to claim 35, the Appellants' sole argument as to why claim 35, which depends from claim 31, is unpatentable over Andersen in view of Benson is that "[c]laim 35 is depending directly from claim 31, which is allowable" (Br. 21). However, for the reasons discussed above, the Appellants have not demonstrated error in the Examiner's rejection of claim 31. Therefore, the Appellants' argument as to claim 35 likewise fails to demonstrate error in the rejection of claim 35 as unpatentable over Andersen in view of Benson. Accordingly, the rejection of claim 35 is likewise sustained.

Issue (3)

Appellants argue the rejection under 35 U.S.C. § 102(b) of claims 31 and 37 as anticipated by Mercorelli together as a group. Therefore, in accordance with 37 C.F.R. § 41.37(c)(1)(vii)(2008), we have selected claim 31 as the representative claim to decide the appeal, with claim 37 standing or falling with claim 31. In view of Appellants' arguments, we will address the rejection of claim 32 separately.

The Appellants argue that Mercorelli does not describe "a member with a sheet supporting surface" because the members 11 and 12 of the device of Mercorelli are "configured to receive dies," hence the cutting device of Mercorelli "includes two opposable die cutting surfaces" (Br. 11). In response, the Examiner takes the position that the die 20 includes a sheet supporting surface (Ans. 9). Although the die 20 of Mercorelli includes a cutting edge 9 (FF 10), the die 20 also includes a surface (FF 11) for holding a sheet material between dies 20 and 21 such that when the dies 20 and 21 are brought together, the cutting edges 8 and 9 can cut out shapes from the

sheet material (FF 12). Therefore, we agree with the Examiner that the die 20 includes a surface that is capable of supporting a sheet, hence constitutes a “sheet supporting surface,” as required by claim 31.

The Appellants further argue that Mercorelli does not describe a die receiving surface that is “planar and uninterrupted” because the receiving surface of member 11 includes hemispherically shaped bosses 25 (Br. 12). The Examiner responds that because (1) the inner surface of the element 18 (channel) is a planar and uninterrupted surface and (2) the side surfaces of the die 21 are uninterrupted and planar, the element 18 (channel) satisfies the limitation of a die receiving surface that is “planar and uninterrupted,” as required by claim 31 (Ans. 9). Claim 31 requires an “uninterrupted, planar die receiving surface.” The male die 21 is received within channel 18 (FF 10). The end of channel 18 includes a boss 25 for positioning and holding the die within the channel (FF 14). Hence, a person of ordinary skill in the art would readily understand that the boss 25 is a positioning and retaining element and is not part of the die receiving surface which is the inner surface of the channel 18. Similarly, the die receiving surface in the Appellants’ invention may also include a die retaining element that protrudes above the plane of the die receiving surface (FF 13). In conclusion, the inner surface of channel 18 (die retaining element) satisfies the limitation of a die receiving surface that is “planar and uninterrupted,” as required by claim 31.

In light of the above, the Appellants’ arguments do not demonstrate error in the Examiner’s rejection of claim 31 and claim 37 standing or falling with claim 31, as anticipated by Mercorelli. Accordingly, the rejection of claim 31 and claim 37 standing or falling with claim 31 is sustained.

Finally, with respect to claim 32, the Appellants argue that Mercorelli does not describe that the die receiving surface is configured to “receive and completely support [the] uninterrupted, planar surface of [a] substantially planar die” (Br. 12). We agree. Claim 32 requires that the die receiving surface is configured to receive a substantially planar and uninterrupted surface of the die. The backside of the male die 21 of Mercorelli, which is received within the channel 18 (die retaining element), includes a centrally located indentation (FF 15). A person of ordinary skill in the art would not understand the backside of the male die 21 of Mercorelli to constitute a planar and uninterrupted surface, as required by claim 32. Accordingly, the rejection of claim 32 cannot be sustained.

DECISION

The decision of the Examiner to reject claims 12-16 and 24-37 is affirmed as to claims 31 and 33-37 and reversed as to claims 12-16, 24-30, and 32.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2008).

AFFIRMED-IN PART

JRG

Appeal 2007-3074
Application 09/864,723

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